Fuel research and development for the 21st Century

American Chemical Society Symposium

Mercury and Trace Metal Transformations: Modeling

August 19th – 23rd, 2007, Boston, MA

234th American Chemical Society (ACS) National Meeting

Sponsored by the ACS Fuel Chemistry Division

*** Preprints due on-line by April 2, 2007 ***

Call for Papers

This symposium features quantitative interpretations of Hg and trace metal transformations in utility gas cleaning environments. Reaction mechanisms that depict how fuel properties, cleaning unit specifications, and gas cleaning conditions affect the speciation of metal vapors and their sorption on flyash and injected sorbents will be highlighted. Specific applications would include predictions that explain how chlorine levels affect the oxidation of Hg^0 along SCR catalysts; the properties of unburned carbon that determine its Hg sorption capacity and kinetics; resolution of mass transfer and kinetic effects in the performance of sorbents for As, Se, and Hg; and reaction mechanisms for the incorporation of B into mineral components. Papers should address new research or novel approaches that demonstrate predictive capabilities with validation by data from lab-, pilot-, or full-scale cleaning units. Topics include, but are not limited to:

- Mechanisms for homogeneous, heterogeneous, or combined metal transformations in well-controlled laboratory environments.
- Predicted impact of fuel quality on metal oxidation performance of SCRs.
- Prediction schemes for Hg emissions rates from full-scale cleaning systems.
- Interpretations for metal retention and re-emission from FGDs

On-line Submissions Open January 22, 2007:

On-line submission of both an abstract and a preprint are required on-line at the ACS OASYS website: **http://oasys.acs.org/oasys.htm**

Instructions and the preprint template are available at ACS Fuel Chemistry Division website: **http://www.anl.gov/PCS/acsfuel/preprintinfo.html**

In addition, please contact one of the co-chairs for inquiries and submissions:

Stephen Niksa	**Steven Benson**
Niksa Energy Associates	UNDEERC
Belmont, CA 94002	Grand Forks, ND
neasteve@pacbell.net	sbenson@undeerc.org